

## REMARKS

### INTRODUCTION

In view of the following remarks, reconsideration of the allowability of the claims is respectfully requested.

Claims 1-18 are pending in the subject application.

### REJECTION UNDER 35 USC 103

Claims 1-3, 10 and 16-18 stand rejected under 35 USC § 103 as being obvious over Ravdin et al., U.S. Patent No. 5,862,304, in view of Smyth, U.S. Patent No. 5,465,321, and claims 4-9 and 11-15 stand rejected under 35 USC § 103 as being obvious over Ravdin et al. and Smyth, in view of Abrams et al., U.S. Patent No. 6,117,066. These rejections are respectfully traversed.

The Office Action recites that Ravdin et al. discloses all the claimed features of the independent claims, except for "the information flow describing a development of a predictability of plural future system states."

The Office Action thereafter indicates that it would have been obvious to modify Ravdin et al. to include a neural network, of Smyth, which "teaches future state prediction using evaluation of a temporal, hierarchical pattern of information flow for the purpose of predicting future outcomes," to "continuously utilize the monitored data to increase the speed and accuracy of predicted future states."

However, in addition to previous responses, the following non-obviousness remarks are respectfully noted, on reconsideration respectfully requested.

Ravdin et al. is primarily directed to an analysis of "static" information, i.e., static patient information is fed into a neural network and the neural network determines whether the static information suggest relapse of a medical ailment.

In Ravdin et al., the neural network reviews data of a static system, i.e., patient data. In addition, in Ravdin et al., the neural network is taught based on static information, as well. See Ravdin et al., in col. 2, lines, 42-58, "a neural network of back-propagation class is trained using the back-propagation of errors training algorithm with data of patients with *known* prognostic variables and disease occurrence. After training, the method then uses the trained neural network to predict future disease occurrence using sets of prognostic variables for which

disease occurrence is not known".

Thus, in Ravdin et al., the neural network reviews the static variables of a patient and derives therefrom some indication as to whether that patient will have a relapse. The system in Ravdin et al. is the patient's prognostic variables, which is static. Similarly, the neural network in Ravdin et al. is reviewing the static variables for a static singular answer, i.e., the neural network is interpreting a static picture for an indication that the patient will relapse or not relapse.

Conversely, the independent claims specifically point out that the system of the presently claimed invention is a dynamic system and that the neural network must interact with that system to generate a "comparison information flow that describes a comparison dynamic of said system," where system was previously defined as being dynamic, using independent claim 1 as an example.

The differences between Ravdin et al. and the presently claimed invention would appear great, at least in the field of respective neural network intended usages.

In Ravdin et al. there would not appear to be any need for a neural network that can operate with a dynamic system.

Ravdin et al. would even appear to be particularly directed toward a static system, such that there would not appear any reason to change Ravdin et al. to now have a much more complicated system and to review dynamic information. Ravdin et al. would appear to work as intended with the static patient variables and neural network designed specifically therefore.

Thus, Ravdin et al. would at least appear to fail to disclose this claimed feature.

In addition, as noted above, the Office Action has indicated that it would have been obvious to modify Ravdin et al. to include an "information flow describing a development of a predictability of plural future states."

Specifically, again as noted above, the Office Action recites that Smyth "teaches future state prediction using evaluation of a temporal, hierarchical pattern of information flow for the purpose of predicting future outcomes, hence enabling robust decision making. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used a temporal, hierarchical pattern of information flow for the purpose of predicting future outcomes in the Ravdin et al. system in order to continuously utilize the monitored data to increase the speed and accuracy of the predicted future states."

However, as also noted above, it would appear that the neural network of Ravdin et al. has been over complicated, since Ravdin et al. would not appear to need a neural network to "continuously utilized the monitored data," and the rejection would appear to fail to indicate how such usage would increase speed and accuracy of predicted future states, as proffered in Office Action, or indicate why the same is needed or beneficial in/to Ravdin et al.

The operation of Ravdin et al. would appear to be simple in that static information is input and a singular answer would appear to be output, i.e., Ravdin et al. would appear to be merely interpreting a static picture to determine whether that picture signifies a relapse or not. In addition, Ravdin et al. does not need to calculate future outcomes or future events, as the output of Ravdin et al. would appear much simpler, a yes or no.

Thus, it would not appear probable that one skilled in the art would have looked to the neural network of Smyth and bodily incorporated that neural network into Ravdin et al. There would not appear to be any reason for such a modification of Ravdin et al.

It is further noted that Abrams et al. would not appear to provide the missing rationale for this modification or make up for the deficiencies of Ravdin et al.

Therefore, for at least the above, it is respectfully requested that these rejections be withdrawn and these claims allowed.

## CONCLUSION

There being no further objections or rejections, it is submitted that the application is in condition for allowance, which action is courteously requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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